IN THE SPECIFICATION:

Please amend the paragraph starting at page 1, line 15, and ending at line 27, as follows.

--As one of conventional approaches to correction ~~for~~ of chromatic aberration of the optical system composed of only refracting optics, there is a method of combining glass materials of different dispersion characteristics. For example, in the case of objectives of telescopes etc., axial chromatic aberration is corrected ~~for~~ by combining a positive lens of a low-dispersion glass material with a negative lens of a high-dispersion glass material. For this reason, there were cases where chromatic aberration was not corrected ~~for~~ adequately if the composition or the number of lenses was limited or if available glass materials were limited.--

Please amend the paragraph starting at page 2, line 1, and ending at line 9, as follows.

--For the purpose of correction ~~for~~ of this chromatic aberration, there are suggestions on methods of controlling the refractive index and Abbe's number in order to expand the range of the optical constants of glass materials, thereby obtaining the low-refraction high-dispersion glass materials, for example, in Japanese Patent Application Laid-Open No. 6-32631, Japanese Patent Application Laid-Open No. 61-9262, Japanese Patent Publication No. 4-33740, and so on.--

Please amend the paragraph starting at page 8, line 17, and ending at line 21, as follows.

--A twelfth aspect of the invention is the optical material of the tenth aspect or the eleventh aspect wherein said Abbe's number (ν_d) ~~indicating~~ indicates the wavelength dispersion in the visible region is not more than 40.--

Please amend the paragraph starting at page 9, line 24, and ending at line 27, as follows.

--An eighteenth aspect of the invention is the optical material of the seventeenth aspect wherein said Abbe's number (ν_d) ~~indicating~~ indicates the wavelength dispersion in the visible region is not more than 40.--

Please amend the paragraphs starting at page 10, line 14, and ending at page 12, line 27, as follows.

--A twenty-first aspect of the invention is the optical material of either one of the seventeenth to twentieth aspects wherein said first material is polymethyl methacrylate.

A twenty-second aspect of the invention is the optical material of either one of the seventeenth to twenty-first aspects wherein said first material is polymethyl methacrylate, said second material is particles of ITO (indium-tin-oxide), and a weight ratio of the particles and said polymethyl methacrylate is in the range of 30:100 to 250:100.

A twenty-third aspect of the invention is the optical material of either one of the seventeenth to twentieth aspects wherein said first material is an amorphous polyolefin.

A twenty-fourth aspect of the invention is the optical material of either one of the seventeenth to twentieth aspects wherein said first material is an amorphous polyolefin, said second material is particles of ITO (indium-tin-oxide), and a weight ratio of the particles and said amorphous polyolefin is in the range of 44:100 to 150:100.

A twenty-fifth aspect of the invention is the optical material of either one of the seventeenth to twentieth aspects wherein said first material is a copolymer of methyl methacrylate and styrene.

A twenty-sixth aspect of the invention is the optical material of either one of the seventeenth to twentieth aspects wherein said first material is a copolymer resin of methyl methacrylate and styrene, said second material is particles of ITO (indium-tin-oxide), and a weight ratio of the particles and said copolymer resin is in the range of 43:100 to 140:100.

A twenty-seventh aspect of invention is an optical member comprising the optical material as set forth in either one of the first aspect to the twenty-sixth aspect.

A twenty-eighth aspect of the invention is an optical system comprising the optical member of the twenty-seventh aspect.

A twenty-ninth aspect of the invention is a diffracting optical element using the optical material as set forth in either one of the first aspect to the twenty-sixth aspect.

A thirtieth aspect of the invention is an optical system comprising the diffracting optical element of the twenty-ninth aspect.

A thirty-first aspect of the invention is an optical device comprising the optical system of the twenty-eighth aspect or the thirtieth aspect.

A thirty-second aspect of the invention is a method for producing an optical material, comprising a step of decreasing a filling factor of a first material, and a step of filling gaps of the first material of the decreased filling factor with a second material having an Abbe's number different from that of the first material, thereby producing an optical material having a desired refractive index and Abbe's number.

A thirty-third aspect of the invention is an optical member comprising the material produced by the production method as set forth in the thirty-second aspect.

A thirty-fourth aspect of the invention is an optical system comprising the optical member of the thirty-third aspect.

A thirty-fifth aspect of the invention is the optical system of the thirty-fourth aspect wherein said optical member is a diffracting optical element.

A thirty-sixth aspect of the invention is an optical device comprising the optical system of the thirty-fourth aspect or the thirty-fifth aspect.--

Please amend the paragraph starting at page 15, line 1, and ending at line 11, as follows.

--Supposing particles have the size of 2 to 100 nm, the polarization characteristics inside the particles will be like those of bulk. However, in the case of a structure with a reduced filling factor of a substance as illustrated in Fig. 2, the polarization characteristics for the light in the visible wavelength range of 400 to 700 nm are of a level in which nonuniformity thereof can be ignored in an optical sense. Therefore, the structure as illustrated in Fig. 2 demonstrates the optical characteristics close to the Drude theory of Eq. (2) below.--

Please amend the paragraph starting at page 15, line 16, and ending at line 27, as follows.

--Fig. 3 is an explanatory diagram to show the relationship between refractive index nd and Abbe's number ν_d with various filling factors of a substance. As seen from Fig. 3, the refractive index n_d, and dispersion ν_d vary as indicated by curves S1, S2, S3, and with variation in apparent density by changing the filling factors, the refractive index demonstrates change while the Abbe's number ~~little~~ change little. Therefore, a substance can be prepared in the region of ($n_d \leq -6.667 \times 10^{-3}\nu_d + 1.70$, $\nu_d \leq 40$, and $n_d \leq$ $0.01\nu_d +$

1.70, $\nu_d \leq 40$) by decreasing the refractive index in the structure of Fig. 2.--

Please amend the paragraph starting at page 29, line 4, and ending at line 18, as follows.

--4 g of a ~~fluorine base~~ fluorine-based surfactant, N-(3-(trimethoxysilyl) propyl)-N-propylperfluorooctanesulfonamide, was added to a solution containing 20 g of particles of Si_x-$Ti_{(1-x)}$ O_2 (5 to 20 nm) in 500 g of 2, 2, 3, 3, 3-pentafluoro-1-propanol, and thereafter the mixture was put into 0.21 ml of 1N hydrochloric acid. The mixture was agitated at 25°C for 24 hours to modify the surface of the particles. After that, 250 g of the fluorine solvent [the molecular structure of $(C_4F_9)_3N$] was added to the mixture and fractional distillation was conducted at 90°C to remove the pentafluoro propanol and isopropanol etc. made by hydrolysis, thereby obtaining the fluorine solvent solution in which the particles of Si_x-$Ti_{(1-x)}$ O_2 were dispersed.--

Please amend the paragraphs starting at page 34, line 6, and ending at line 19, as follows.

--4 g of the ~~fluorine base~~ fluorine-based surfactant, N-3-(trimethoxysilyl) propyl)-N-propylperfluorooctanesulfonamide, was added to a solution containing 20 g of TiO_2, particles (5 to 20 nm) in 500 g of 2, 2, 3, 3, 3-pentafluoro-1-propanol and thereafter 0.21 ml of 1N hydrochloric acid was added thereto. The mixture was stirred at 25°C for 24 hours to modify the surface of the particles. After that, 250 g of the fluorine solvent [the molecular structure of $(C_4F_9)_3N$] was added thereto and fractional distillation was conducted at 90°C to remove the pentafluoro propanol, and isopropanol etc. created by hydrolysis, thereby preparing the fluorine solvent solution in which the TiO_2, particles were dispersed.--

Please amend the paragraph starting at page 51, line 2, and ending at line 7, as follows.

--4 g of the ~~silicone base~~ silicone-based surfactant was added to a solution containing 20 g of TiO_2 particles (5 to 20 nm) in 500 g of n-butanol, and thereafter 0.2 ml of 1N hydrochloric acid was added thereto. The solution was stirred at 25°C for 24 hours to modify the surface of the particles.--